

8 y rule 1  
10. The system according to claim 8, further  
comprising a phosphor for converting a wavelength of  
radiation.--

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REMARKS

This is a divisional application of Application No.  
09/185,717 filed November 4, 1998 (the "'717 Application").


Applicants claim priority under 35 U.S.C. § 119  
based upon Japanese Priority Applications No. 9-301673, filed  
November 4, 1997, and respectfully request acknowledgment of  
this claim and of receipt of the certified copy of the  
priority document, which was filed January 27, 1999, in the  
'717 Application.

Claims 1-10 remain pending in this application.  
New Claims 9 and 10 have been added to provide Applicants  
with a more complete scope of protection. Claims 1, 4 and 8  
are in independent form.

Entry of this Supplemental Preliminary Amendment  
and favorable consideration is earnestly requested.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address given below.

Respectfully submitted,

  
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VERSION WITH MARKINGS TO SHOW CHANGES MADE TO CLAIMS

1. (Amended) A photoelectric converter comprising a photoelectric conversion element of a laminated structure comprising:

a first electrode layer;

an insulation layer for blocking the passage of a first carrier and a second carrier having different polarity from the first carrier;

a photoelectric conversion semiconductor layer;

an injection blocking layer for blocking the injection of the first carrier to the photoelectric conversion semiconductor layer; [and]

a second electrode layer; and

[wherein] a switching means [is provided] for operating the converter by switching through the following three operation modes a) through c), in that order, [for applying] to apply an electric field to each layer of the photoelectric conversion element[;]:

a) an idling mode for emitting the second carrier from the photoelectric conversion element;

b) a [refreshment] refresh mode for

refreshing the first carrier accumulated in the photoelectric conversion element; and

c) a photoelectric conversion mode for generating pairs of the first carrier and the second carrier in accordance with an amount of incident light to accumulate the first carrier.

2. (Amended) The photoelectric converter according to claim 1, wherein a potential difference  $[(V_{dg}[\text{idle}]]$   $V_{dg}[\text{idle}]$  obtained by subtracting the potential of the second electrode layer from the potential of the first electrode layer of the photoelectric conversion element in the idling mode is [a positive value ( $0 < V_{dg}[\text{idle}] < V_{dg}[\text{read}]$ )] smaller than [the] a potential difference  $V_{dg}[\text{read}]$  obtained by subtracting the potential of the second electrode layer from the potential of the first electrode layer of the photoelectric conversion element in the photoelectric conversion mode.

3. (Amended) The photoelectric converter according to claim 1, wherein a recess mode of the photoelectric conversion element is provided for applying a zero electric field to each layer before the idling mode.

5. The method for driving a photoelectric converter according to claim 4, wherein a potential difference  $[(V_{dg}[\text{idle}])]$   $V_{dg}[\text{idle}]$  obtained by subtracting the potential of the second electrode layer from the potential of the first electrode layer of the photoelectric conversion element in the idling mode is a positive value ( $0 < V_{dg}[\text{idle}] < V_{dg}[\text{read}]$ ) smaller than the potential difference  $V_{dg}[\text{read}]$  obtained by subtracting the potential of the second electrode layer from the potential of the first electrode layer of the photoelectric conversion element in the photoelectric conversion mode.

8. (Amended) A system comprising:

[the photoelectric converter according to claim 1,  
the photoelectric converter having a phosphor for converting  
input radiation into light;]

a photoelectric converter comprising a  
photoelectric conversion element of a laminated structure  
comprising:

a first electrode layer,  
an insulation layer for blocking the passage  
of a first carrier,  
a second carrier having different polarity

from the first carrier,

a photoelectric conversion semiconductor  
layer,

an injection blocking layer for blocking the  
injection of the first carrier to the photoelectric conversion  
semiconductor layer,

a second electrode layer,

a switching means is provided for operating  
the converter by switching through the following three operation  
modes a) through c), in that order, to apply an electric field to  
each layer of the photoelectric conversion element:

a) an idling mode for emitting the  
second carrier from the photoelectric conversion element,

b) a refresh mode for refreshing the  
first carrier accumulated in the photoelectric conversion  
element, and

c) a photoelectric conversion mode for  
generating pairs of the first carrier and the second carrier in  
accordance with an amount of incident light to accumulate the  
first carrier;

a signal processing means for processing a signal  
from the photoelectric converter;

a recording means for recording a signal from the  
signal processing means;

a display means for displaying a signal from the  
signal processing means;

an electric transmission means for electrically  
transmitting a signal from the signal processing means; and

a radiation source for generating radiation.

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